

REMARKS

Claims 1 to 15 are pending in the application, of which claims 1, 9 and 15 are independent. Reconsideration of the application, as amended, is respectfully requested in view of the following remarks:

Objection to the drawings

The examiner objected to the drawings originally submitted with the application. In response to the objection, the applicants submit herewith one sheet of corrected drawings. In Fig. 1, the elements have been labeled as suggested by the examiner. No new matter has been added. The applicants respectfully request withdrawal of the objection to the drawings.

35 U.S.C. § 112, second paragraph rejection

The examiner rejected claims 1, 9 and 15 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the applicant regards as the invention. The applicants have amended claims 1, 9 and 15 to provide antecedent basis for "the life of the battery".

35 U.S.C. § 103(a) rejection

Derbyshire et al. in view of Munch et al.

The examiner rejected claims 1-4, 8-11 and 15 under 35 U.S.C. § 103(a) as being unpatentable over Derbyshire et al. (U.S. 6,271,748; "Derbyshire") in view of Munch et al. (U.S. 6,580,364; "Munch").

The Derbyshire system includes a battery-powered wheel transmitter unit that monitors the temperature and pressure of a tire as well as the voltage level of the battery. The wheel transmitter unit generates a pressure signal, a temperature signal, and a battery-voltage level signal at various intervals. The wheel transmitter unit is programmed to examine the battery-voltage level signal and transmit data to a receiving unit indicating a low battery-voltage level if the battery-voltage level is less than a predetermined value.

As acknowledged by the examiner, Derbyshire does not disclose or suggest a system that includes (in the words of claim 1) "a controller, which judges whether or not the life of the battery is ending depending on the voltage-related value, wherein the judgment regarding the life of the battery is performed in accordance with the temperature in the tire."

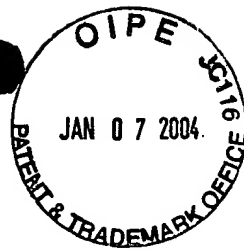
According to the examiner, Munch discloses a controller that judges the life of the battery in accordance with the temperature in the tire. The applicants disagree.

The Munch system includes a tire condition sensor module for sensing temperature and pressure conditions of the tire as well as the voltage of a battery that powers the module. The Munch controller controls a transmitter that transmits a data packet having data bits indicating the sensed battery-voltage condition information. A receiver module evaluates the received data bits and compares the battery-voltage condition information against an associated threshold value stored in the memory of the receiver module to determine whether the battery voltage level is low. If the determination is affirmative, the Munch system adjusts a counter having a value indicative of a duration of an abnormal tire condition. Munch does not disclose or suggest judging whether the life of the battery is ending depending on the voltage-related value in accordance with the temperature in the tire. Munch is silent about using the sensed temperature information to determine whether the battery voltage level is low. The Munch system simply compares the sensed battery-voltage level to a prestored threshold value.

Neither Derbyshire nor Munch, alone or in combination, discloses or suggests a feature of claim 1, i.e., "a controller, which judges whether or not the life of the battery is ending depending on the voltage-related value, wherein the judgment regarding the life of the battery is performed in accordance with the temperature in the tire." For at least this reason, the applicants submit that claim 1 is allowable over the art rejection.

Claims 9 is directed at an apparatus having a controller that "judges whether or not the life of the battery is ending depending on the voltage of the battery ... wherein the judgment ... is performed in accordance with the temperature in the tire." For at least the same reason given above with respect to claim 1, the applicants submit that claim 9 is allowable over the art rejection.

Applicant : Yasuhisa Tsujita et al
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Claim 15 is directed at an apparatus having a controller that "judges whether or not the life of the battery is ending based on a comparison between the voltage of the battery ... and a variable voltage reference that is selected in accordance with the temperature in the tire." For at least the same reason given above with respect to claim 1, the applicants submit that claim 15 is allowable over the art rejection.

The dependent claims are patentable for at least the same reasons given with respect to the independent claims from which they depend.

Enclosed is a \$420.00 check the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: 1/5/04

A handwritten signature in black ink, appearing to be "Mandy Jubang".

Mandy Jubang
Reg. No. 45,884

Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110-2804
Telephone: (617) 542-5070
Facsimile: (617) 542-8906